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THE GENESEE FARMER.

SATURDAY, APRIL 26, 1834.

Asparagus.

Asparagus "in its native state is so dwarfish in appearance even when in flower, that none but a botanist would consider it as the same species with our cultivated plant." From this we may discover the great benefits of high culture. Some gardeners recommend the beds to be dug one foot deep; but the Edinburgh Encyclopædist, from whom we have made the above extract, says "the soil should *not be less than two feet and a half* deep." He adds, "it can scarcely be too well dunged."

The soil (or subsoil) should undoubtedly be loose; and the Encyclopædist recommends a rich sandy loam. The finest Asparagus that we have ever seen however, grew in gravelly ground cultivated by the late COMFORT TYLER at Montezuma. It is highly probable that the soil is impregnated with *salt*. The use of this mineral as a manure for this plant is well known to many gardeners; and we are satisfied of its value from our own experience. We think neither cows nor sheep require this stimulant more than Asparagus. *Dean* says "To a bed fifty feet by six, *a bushel of salt* may be safely applied before the plants start in the spring." We often apply it long after they have started.

The same Encyclopædist says "Damp ground or wet subsoil is not fit for Asparagus. Indeed the French consider wetness so prejudicial to this plant, they *raise their Asparagus beds about one foot above the alleys* in order to throw off the rain."

Gray, an English botanist, says "The plants are mostly dioicous;" and *Weston* in "The Repertory of Arts," observes that the *males* yield a greater number of shoots than the *females*. He advises in planting out beds, to select the former; and to prevent mistakes, says they should not be taken from the seed bed till they have flowered.

Asparagus "is found on the sea shores in many parts of Europe; and is abundant in the inland *sandy* plains in Russia, Turkey and Greece. It was in much esteem both among the Greeks and Romans. It was much praised by Cato and Columella; and Pliny mentions a sort which grew near Ravenna, a *deep sandy* country, *three shoots* of which would weigh *a pound*." *Loudon's* Encyc. Plants.

Many gardens in the Genesee Country have been laid out on heavy loam; and for Asparagus beds we would advise the proprietors to prepare an *artificial* soil. We have lately seen a bed for this purpose which is *two feet and a half deep*.

Review of Thacher's American ORCHARDIST.

Like many others who have written on these subjects, Dr. T. cautions his readers against using SUCKERS for stocks. "Suckers from other trees," he says, "should never be employed, as they will have a constant tendency to generate suckers to the injury of the tree." In our opinion however, such remarks are not the results of experience. We have seen no plum trees of the domestic kind, or of the pear, that did not sucker; and therefore we have no right to expect seedlings to be exempt from suckers. Amongst the varieties of the plum, some are much more inclined to sucker than others; and if we select one which is the least inclined, from among many, we may safely conclude that the chances are much in favor of its not suckering so much as a new seedling. Why then should we be afraid to use a sucker for a stock?

A tree must sucker before we can procure a sucker for this purpose. What is there to prevent that tree from continuing to sucker as much as the shoot that is separated and transplanted? *Both* trees are only *parts of the same individual or variety*; and their constitutional temperament is not to be changed except by disease; but it is not pretended that the separated shoot is diseased; and therefore its disposition to sucker can neither be increased nor diminished.

There are much better reasons however, against the employment of suckers in nurseries. Stocks from the seed may be generally obtained with less labor, and often in less time,—for in the first year or two, they will grow more vigorously than suckers; and with the nurseryman these reasons may be sufficient. But it will sometimes happen in remote places that nothing but suckers can be had for stocks; and then we would recommend the farmer or the horticulturist to use them without hesitation. We have been in such situations ourselves. We have probably employed more suckers for stocks than all the authors whom we have ever read; and we put in our claim to some practical knowledge of this subject. The most serious objection to their use has not been mentioned by any of these writers. Suckers from the plum, or the pear, arise from horizontal roots; when transplanted, sometimes *too much* of the horizontal root is retained, and if the new fibres grow chiefly from the ends, the tree is easily bent and loosened by *a side wind*. We have several in this critical situation. The roots of a tree, to support it in the best manner, ought to project like the radii of a circle. With care, in pruning the root of a sucker when first taken up however, the disadvantage referred to, may be avoided; but without being aware that such attention was necessary, and taking them just as they happened to come,—we have probably not more than the proportion of one tree in eight or ten that is now suffering from that neglect. We have many trees on suckers that are as fine, and as free from other suckers as any tree that we have ever raised from seed.

The Canker worm (*Phalæna vernata*) is a great pest to the orchardists of Massachusetts. "Of all the numerous tribes of insects," says Dr. T., "which infest trees and disappoint the hopes of the cultivator, this during the years of its prevalence, is the most to be dreaded.—It deprives whole orchards of foliage and fruit." Fortunately, it appears to be confined to a narrow district. Dr. *Dean* in his Georgical Dictionary said forty years ago, that it was (then) "about fifty years since this insect began its depredations in New England in the parts which had been longest cultivated." If this assertion is warranted, it becomes a curious subject of inquiry with the naturalist to discover *where?* and *in what manner*, it subsisted previous to that time? There is no reason to believe that new animals are created in these times; but much reason for thinking that many old ones have been *overlooked*. The *Chrysomela vitivora* so destructive to the Vine, has not within our knowledge, been noticed by any writer, more than three years. The omissions of historians cannot be received as evidence to disprove the existence of such insects in former times.

Under the head of "*Gathering and preserving Apples*," we have an extract of a letter from N. Webster, Esq. recommending to pack apples *immediately from the tree* in casks with dry sand, and closing with this remark: "My pippins in May and June, are as fresh as when first packed; even the ends of the stems look as if just separated from the twig." Our author adds that "wheat bran is sometimes substituted for sand;" and dry saw dust has also been recommended for the same purpose.

Dr. T. says, "A captain of a whale ship has just informed me that he has found the best method to preserve vegetables (potatoes and beets) on a long voyage, is to pack them in lime casks, and to sift some slacked lime over them. This absorbs the moisture; secures them from the effects of heat[?]; and prevents in a great measure, *potatoes from sprouting*. By this method he has preserved potatoes over a year in a better condition than by any other. He is of opinion that this would be an eligible method for preserving apples and pears; and I have resolved this season to test the experiment accordingly." No report of the result has reached us.

Our author has given us the following:

"It is not known perhaps so generally as it ought to be, that *apples make* AN EXCELLENT JELLY. The process is as follows: They are pared, quartered, and the core completely removed, and put into a pot *without* water, closely covered, and put in an oven or over a fire. When pretty well stewed, the juice is to be squeezed out through a cloth, to which a little white of an egg is added, and then the sugar. Skim it previous to boiling; then reduce it to a proper consistency, and an excellent jelly will be the product." V.

(*To be continued.*)

Root Culture.

We believe there is no one point in which a greater improvement can be made in our system of farming, than by a more general introduction of root crops. The following is the opinion of an eminent agriculturist of Ontario county on this subject: "I am persuaded that it would be to our interest to cultivate a greater variety of roots for stock. I have procured seeds of Ruta Baga and Carrots, and shall give them a fair trial side by side—the result thou wilt probably learn."

Bloody Murrain.

We published in No. 9, page 67, a communication from a correspondent in Ohio, stating a case where a farmer had lost several cattle by this disease, and on opening them had found leeches in their stomachs. The following statement from the Lockport Courier, confirms the suspicion of our correspondent, that the death of the cattle was occasioned by the leeches which were supposed to have been swallowed by the cattle while drinking. It will be seen that in the case related below, a remedy was discovered which proved effectual in saving several cattle:

About two years since, Mr. BENJAMIN BAILEY, a farmer of the town of Clarence, Erie County, handed us a statement of an examination which he made (assisted by two of his neighbors, Col. Miner and Mr. Goff,) of a cow which he had lost by the above disease, which has proved very common and fatal to cattle in this section within a few years. This statement was mislaid at the time—but having been accidently discovered a few days since, we think we cannot do a better service to the farming community than to lay it before them, as the season for the disease is approaching, and by knowing what is, *probably*, the true cause of it, they may be better enabled to guard against its effects.

Mr. Bailey states, that on opening the cow he found about two pails' full of blood in the stomach; the liver was completely rotten, covered with purple spots, and full of holes, filled with clotted blood. On searching the liver in the direction of these holes, he found a dead worm, similar to that which produces the butterfly, and a *live leech*. The liver was perforated in all directions, and a hole made through the main artery, near the gall, about large enough to admit of a pipe stem. When the holes came near the skin of the liver they ran off in another direction, as though the animals making them had turned back—and it was where these holes thus approached the skin, that the purple spots on the liver were visible. The leech lived about twelve hours after it was taken from the liver.

As several of Mr. Bailey's cattle were affected in a similar manner with the cow which died, he prepared a draught of alum and sulphur, and gave it to them, which soon relieved them.

Mr. B. imagines that the cattle swallow the leeches when drinking from stagnant pools of water in the warm season, when the streams are in a measure dried up.

For the Genesee Farmer.

The Water of Crystallization.

Your correspondent "Camillus" appears to understand his subject well, with only one exception: He says "The water of crystallization is one of the component parts of *all* crystallized substances." It would be correct to write *many* or *most* instead of "*all*." Professor *Brande* says "There are certain bodies which may be dissolved or liquefied by heat, and during slow cooling may be made to chrystallize. This is the case with many of the *metals*, and with *sulphur*." Now it will not be said that water forms any part of these metals. Sulphur sublimes at 550° or 600 of Fahrenheit, and when sublimed and "examined by the microscope, appears composed of minute crystals." Common sulphur is purified by sublimation; yet when it is burnt in either common air, or in oxygen gas it only produces *sulphurous* acid,—for no *sulphuric* acid is formed unless moisture is present. Therefore sulphur contains no moisture or water of crystallization.

The *diamond* is another crystal that contains no water. "In 1797 Mr. *Tennaut* demonstrated the important fact, that when equal weights of diamond and pure charcoal were submitted to the action of red hot nitre, the results were in both cases the same." But this could not happen if the diamond contained water.

Under the head of Anhydrous Gypsum, or Anhydrite, *Cleaveland* says "*A total absence of the water of crystallization* appears to be essential to this salt;" and *Phillips* also remarks that "Anhydrous (from the Greek) signifies *without water* as *is the case with Anhydrite*."

These instances may be sufficient to prove my position. AN OBSERVER.

For the Genesee Farmer.

Maples and Poplars.

There are *two* kinds of sugar maples (*Acer saccharinum* and *Acer nigrum*) distributed nearly in equal numbers through some of the western parts of New-York; but very few of our farmers have observed the difference between them.

There are also *two* kinds of Balm of Gilead Poplars (*Populus candicans* and *Populus angulata.*) The former I have not seen growing except in cultivated grounds; yet I have no reason for believing, even if transplanted, that they were brought from any great distance. This species is represented as growing forty or fifty feet high; and such as I have seen appear less inclined to grow tall than to spread.

The other Balm of Gilead is the cotton wood of the Western Country. It is also a native of this region, growing freely where it was never planted; and in some places it is found of great magnitude. It frequently attains the height of eighty or a hundred feet. A READER.

For the Genesee Farmer.

Chain Pumps.

I had concluded that the old fashioned *well sweep* was the best method of drawing water, notwithstanding the variety of pumps, windlasses, &c. in so general use. But the communication of Mr. Samuel Griggs, in No. 7 of the present volume, on the subject of chain pumps, inclined me to believe that he had hit upon a better plan for drawing water than any I had ever seen used.

I am however so little of a mechanic, that I am not able fully to comprehend his description, and would beg of him to be a little more particular in some parts. In the first place, Mr. Griggs says take two plank one and a half inches thick five inches wide and join them, then with a half round tool make a hollow in each, one and one fourth inches deep; nail the plank together so as to make a round hole between them one and one fourth in diameter, two and a half inches up from the bottom; then make it a size larger from there to the top of the box or pump. Now as this hollow made in each plank is one and one fourth inches deep, it follows that where they are nailed together, the hole will be two and a half inches in diameter. I would inquire whether the hole is only half round for two and a half inches up from the bottom, or a circle of only one and one fourth inch in diameter; and how he makes it a size larger from there up? Do your leathern boxes fit tight for the distance of only two and a half inches, and loosely the remaining distance? And how are these leathern boxes made tight on a figure 8? Would it not be preferable to have round boxes of lead or cast iron made in this form [redacted] just filling the hole at the bottom?

Were it not that I consider any thing having a tendency to ease the burden of drawing water a public benefit, I would have applied directly to Mr. Griggs for an explanation of his manner of making chain pumps; but I presume many of your readers, who would be very glad of some easier way of drawing water, have had the same difficulty in understanding this description that I have had. As I do not question but what Mr. Griggs' pump possesses all the advantages he has stated in his communication, I trust that the same desire for the general good which induced him to make it public, will also convince him of the necessity of being more explicit, that those who are not overstocked with mechanical ingenuity may also be benefitted thereby. O. P. Q.

For the Genesee Farmer.

Pumpkins.

I am not much of a farmer, my own time having been occupied for many years in other business, so that I have not had those opportunities for making experiments in agriculture that are calculated to advance the interests of said science. It was nevertheless my good fortune some eight or ten years ago, to procure some seeds of the pumpkin, the culture of which has proved so peculiarly advantageous, that I am anxious to call the attention of farmers to the subject. No doubt these remarks may excite a sneer from many of your sagacious readers, who will lay by the paper in contempt, and say, "Who does not know all about a pumpkin?" The man from whom I procured the seed possessed rather a facetious turn, so that in his recommendation of his pumpkin seed, I at first apprehended that he was indulging in that merry propensity, as he remarked that they would grow in so long a shape that a man might carry one on his shoulder with the same facility that he could a stick of wood or a rail. When my pumpkins came to maturity, I found there was too much truth in his remarks to be all a joke. They will sometimes grow to the length of from 20 to 30 inches, and perhaps a foot in diameter. Their peculiar advantages over the common round pumpkin, consist not in their shape. The substance of them is thicker, of a finer texture, and very evidently sweeter than the other kind. The space containing the seeds is small in proportion to the size of the fruit, and consequently they are proportionably heavier. Some of them have weighed over sixty pounds. I have not failed a single year of raising a luxuriant crop; and a neighboring farmer who procured some of the seeds of me, and used it two seasons, assured me that it had proved a nett gain of more than $20. It is a true maxim, that "what is worth doing at all, is worth doing well." So, although the subject of my communication is a pumpkin, if it is worth raising, it is certainly best, if there be any choice in the seed, to select the best and cultivate it in the best manner. In cultivating the pumpkin, I have usually followed the example that has been set me by neighboring farmers, and planted the seed along with that of my corn. Two years ago a circumstance occurred that has caused me to doubt if that is the most economical method. A pumpkin plant came up by accident near the door of my dwelling, and was discovered by a little boy, and mistaken by him for a plant of a watermelon, and by him transplanted among the tender vines in the gar-

den. It so happened that the bugs or some other blight destroyed the other vines near it, so it had ample room to develop itself in all directions; the consequence of which was, a crop from this one plant that weighed 215 pounds. Now it must so be, that the luxuriant crop of vines that is produced among the hills of corn, must diminish in some degree, the crop of corn. So the question would arise whether it would not be the most consistent and profitable mode to plant them in fields separate from other crops? Perhaps some of your numerous readers have tried the experiment.

Phelps, April 17, 1834. C. B.

For the Genesee Farmer.

Chickweed.

I believe it to be a well founded opinion, that weeds growing among wheat, subtract from the soil a portion of its strength, and of course are detrimental to the grain. Whether chickweed is an exception to this rule, remains to be determined. It is a humble plant, and in some soils, however thoroughly they may be tilled, it completely covers the ground between the plants of wheat. My wheat fields have abounded with it for several years, and yet my crops have been good. My mind is nearly brought to the conclusion, that the benefit derived to the crop by the ground's being shaded by this weed, is equal to the injury, if any, which the soil sustains. Does not this close covering prevent in some measure the penetration of frost?

My motive in penning this article is to obtain information. In examining one of my wheat fields to-day, I found the wheat looking strong, but an unusual growth of chickweed. I never saw a cleaner fallow than it was when I sowed my wheat—it was ploughed three times, and was as mellow as a garden. If any of your correspondents can give information, it will be thankfully received by ONTARIO.

Spring Work.

See that your sheep are freed from ticks. A correspondent gives the following directions for effecting this object:

"Boil a small quantity of tobacco, perhaps what grows on one good thrifty stalk would be enough for half a dozen sheep, in so much water, as when it is sufficiently boiled, there shall be two or three gallons of the liquor; let it become sufficiently cool, then open the wool along the center of the neck and back of the sheep, and with a bunch of tow or some other spongy substance put on the decoction until the skin becomes thoroughly moistened therewith, and in a short time the ticks will all be destroyed, and the sheep instead of pulling out and wasting their wool by fruitless exertions of self-defence, will become easy and contented, and suffer their fleece to remain to be taken off by the shears.

"For many years I have taken this method with my sheep, just before the time of their lambing, and have always found it to have the desired effect. I very much dislike the foolish practices of smoking, chewing and snuffing the poisonous weed, at least where no better reason can be given for so doing than fashion or the force of habit; yet I annually raise a few plants for the benefit of my sheep, and would recommend to every one who keeps these useful animals to do the same."

We approve of the practice of our correspondent in cultivating *a little* tobacco for the purpose of extirpating sheep-ticks. It is likewise well to use decoctions of this plant for destroying lice on cabbage plants, insects on fruit trees, &c. It has been recommended to use the powder or dust of tobacco to save young plants from insects. While the dew is on the ground the dust of tobacco is thrown over the beds where the plants are just coming up. Likewise a liquid expressed from this plant may be obtained of tobacconists, which is cheap, and highly destructive to animal life. Mix this liquid with from three to five times its quantity of water, and with a syringe or watering pot you may rid your premises of cankerworms, caterpillars, turnep flies, and other plagues of the kind in a cheap and efficacious manner.

If you cannot conveniently obtain this essence of destruction from some neighboring tobacconist, you may pour boiling water on the leaves or even the stems of tobacco, and when the decoction is cold apply it as aforesaid to such creeping and crawling animalcules as it may be desirable to doctor into non-entity.

Ewes and Lambs. The *Farmer's Manual* asserts that the best nursing for feeble lambs is to keep the ewes well, and recommends giving them not only potatoes and carrots, but white beans in small quantities, so as not to excite fever. If your lambs are feeble they will require to be nursed with warm milk, given frequently in small quantities. Ewe's milk is best, and if the ewe does not give milk enough for her lamb, there is little probability that the lamb will live. Therefore, as before asserted, you should attend to the diet of the mother for the purpose of giving health to her offspring. If you are apprehensive lest foxes should take unwarrantable liberties with your lambs and geese, you will rub a little tar on their necks, and it is said neither foxes nor wolves will attack them, as those marauders cannot endure the odor of tar.

Culture of Onions. The following mode of cultivating onions is extracted from a communication for the New England Farmer, printed vol. 3, p. 265, and written by J. Tucker, Esq. of Salem, Mass. We reprint the directions because they appear to us useful, differing in some respects from any others which we have observed, and will be as good as new to many of our readers.

"The land should be ploughed about four inches in depth and harrowed so as to make it very fine; the manure which should always be a rich compost, should be ploughed in and thoroughly mixed; the land should then be rolled with a heavy roller to form a close bottom for the bulbs to form upon, and at the same time not so hard as to prevent the plant from penetrating. The best onions, and the largest crops are produced where the bulbs grow almost entirely on the top of the ground. After the ground has been rolled and before the seeds are sown, the beds should be raked with a sharp iron rake, to prepare a finely pulverised drill for the reception of the seed; and after the seeds are sown, the drill should be pressed with a board and sufficient weight to bring the earth in close contact with the seed. Care should be taken in the selection of the seed; none should be sown but what will be sure to vegetate, and it would be well if no more seed was sown than you would have plants to grow and remain in the drill. It will be superfluous to add that if you would have a good crop of onions, you must not permit a crop of weeds to grow in the same bed, they will not do well together."

The best manures for onions are said to be sea weed and charcoal dust. The sea weed should be buried with a spade or plough like any other coarse manure. The charcoal dust spread upon the top of the ground intended for onions about a half an inch thick, before the seed is sown, (the ground being previously well dug and manured) and dug in with the point of the spade, so as to mix the top soil and charcoal dust together.

Mr. Joseph Perkins of Newbury, Mass. in the year 1832 received a premium of twenty dollars from the Mass. Agricultural Socity for a crop of onions, amounting to 646 1-2 bushels to the acre, reckoning 52 1-2 lbs. to the bushel. The following as stated by Mr. Perkins was the mode of culture by which this great crop was obtained.

"The quality of the soil varies from a light yellow to a dark loam, and has been cultivated with onions for several years. The 20th of November last, there were four loads of barn manure ploughed in, in ridges. The 28th of April following, the land was ploughed and harrowed, and three pounds of seed sown in drills fourteen inches apart. The first hoeing and weeding was done June 10th, which cost six days' labor. The last weeding was done July 7th which cost six days more. They were harvested the last of October, and nine thousand and seven hundred bunches have been bunched; which estimating 15 bunches to the bushel, each bunch weighing 3 1-2 lbs. is six hundred and forty six and a half bushels."

NEW MODE OF SELECTING SEED CORN.

Mr. Solomon Thayer of New Braintree, Mass. has left in the office of the N. E. Farmer, several ears of Indian corn, which are remarkable for a property in which common corn are often deficient. The small ends of the ear is filled completely out, quite to the extremity with sound kernels of good size, instead of an inch or two, more or less of small imperfect kernels, or barren cob, as is often the case, in the product of our corn fields. This was effected by Mr. Thayer, by selecting for seed for several years in succession, kernels which grew at the tip of the ear; and as like not only produces its likeness, these top end kernels being planted produced two or three more ears to a stalk, which were filled and the ends *rounded off* with sound corn of larger size than top end kernels usually are.

We doubt however, whether these ears are as large as if the largest kernels had been planted. Some cultivators think they have derived advantage by selecting their seed corn exclusively from the largest end of the ear. They tell us that "the nearer the seed is taken from the butt-end the larger will be the ears." Perhaps Mr. Thayer might improve on his praise-worthy experiment by selecting seed corn for two or three years from the large end of his improved ears; and then plant a while from the middle. Dr. Deane directed in shelling seed corn, to select about an inch from each end of the corn, planting the middle only. But experiments are of more weight than authority in the scale of improvement. —*N. E. Farmer.*

[*Communicated for the Farmer.*]

Lecture on Horticulture,

Delivered before the Young Men's Association of Albany, March, 1834. *By* JESSE BUEL, Esq.

Neither education nor habit has qualified me to address a public assembly. But the high approbation with which I have seen your association formed, and acquire strength and respectability; and the individual and public benefits which it promises in its results, have induced me to contribute my mite towards your entertainment and improvement in useful knowledge, by addressing you some brief remarks on the business of Horticulture. This subject is commended to your notice as one which contributes largely to supply our wants and to highten our enjoyments;—as a healthful recreation to the studious and sedentary, and as surpassing most other employments in the high gratifications which it is capable of imparting to the mind.

Horticulture is another term for gardening. It embraces the management of the garden, whether intended for the production of fruit, culinary vegetables or flowers. The art is co-extensive with our race. It was the employment of our first parent in Eden. Its early history is too obscure to be traced. Suffice it to say, that in the polished ages of Rome, it was cultivated with taste and assiduity, and ranked with the fine arts; and that with these it sunk to obscurity at the downfall of that empire. All of the art that survived the shock of Vandalism, remained cloistered with the monks during the dark ages. With learning, too, it revived, first in Italy and Holland; to which countries many exotics, and a taste for their cultivation, were introduced during the crusades. It was not until the reign of Henry VIII. in the beginning of the 16th century, that gardening was much cultivated in England. Previous to this time, even cabbages and pot herbs were imported from Holland for the tables of the opulent. During this reign, apricots, melons, herbs and esculent roots were introduced first into the royal gardens. Among the varieties of that day is mentioned "the blacke trees, which bear no fruit, but only a pleasaunte flowere." Improvement in horticulture progressed under Elizabeth and Charles I., —during the reign of the latter, the first general book of English gardening was published by Parkinson, a work which is yet quoted with high commendation. At this time the first mention is made of potatoes, cauliflowers, celery, &c.

About the middle of the seventeenth century, several valuable publications upon horticulture appeared in England and France; and in 1724, Philip Miller published his celebrated Gardener's Dictionary, an original work of merit, which attracted general notice, and gave a new impulse to improvement. British and other foreign works on gardening have since been greatly multiplied; and improvement has kept pace with the increase of wealth and refinement, until horticulture has attained to a high state of perfection, both as a useful and an ornamental art, in most of the civilized countries of the old continent. Horticultural Societies have done much to accelerate improvement, and to multiply the subjects of culture.* The society of London, established a garden in 1818, and sent agents into every quarter of the world to collect whatever could be found useful or ornamental. One of these agents, after traversing the United States and the Canadas, for this purpose, has spent four years on the Pacific coast of our continent, exploring the country from California to Columbia river, and from thence across the continent to the Hudson Bay factories, in collecting rare plants and seeds. Some idea of the extent of this society's labors, may be formed from the fact, that in its Catalogue for 1830, there are enumerated, as growing in its garden, 3400 varieties of hardy edible fruits, and 58 varieties of edible nuts, exclusive of 89 varieties of the fig, 182 of the grape, 56 of the pine apple, and 131 of the melon, nearly all of which last named are cultivated in houses, with the aid of artificial heat—making an aggregate of about 4000 varieties of fruits, independent of ornamental plants. This society has been highly useful to us, not only by awakening here a spirit of horticultural improvement, but by distributing, through its corresponding members among us, many of its choice fruits and ornamental plants.

From the restricted means and economy incident to a new country, gardening has with us been limited to what has been deemed necessary, seldom aspiring to elegance. The neighborhoods of our commercial towns form but a partial exception to this remark. Indeed, until within a few years, the progress of horticultural improvement has been slow among us. And even now, the cultivation of fruits and esculent roots is but imperfectly understood, or their value, in promoting the health, comfort and economy of a family, not duly appreciated, by the generality of our countrymen. Few of the fine varieties of fruit, and other choice productions of the garden, are seen in traveling through our country. But a better taste is gaining ground. We have effected much in the last twenty years, and have abundant reason to anticipate greater improvements in the twenty years to come.

A good fruit and vegetable garden is a source of high gratification, as it regards the reasonable indulgence of the appetite. No fruits are so delicious as those we pluck from our own trees and vines—no vegetables so grateful as those which have been cultivated by our own hands—and no productions of the garden so truly good and healthful at any time, as when fresh gathered for use. But if we add to these enjoyments the pleasurable sensations which arise from the ornamental department,—from the novelty, the fragrance and the beauty, with which nature, in summer, is ever varying her pencilings upon the flower border and in the shrubbery, we shall find that a garden is intimately connected as well with the pleasures of the mind as the wants of the body.

Few of my hearers, I apprehend, have ever reflected on the extent to which we are indebted to foreign countries for the vegetable productions which enrich our tables and regale our senses. Did our gardens contain only the plants that are indigenous to our country, the supply would indeed be scanty. But we have laid almost every clime under contribution to administer to our wants and to embellish our grounds. Most of our grain, and a large portion of our esculent roots, derive their origin from other countries. The greatest part of them came to us from Great Britain and Holland, which in turn received them from Italy, Italy from Greece, and Greece from the east. Rye and wheat are indigenous in Siberia and Little Tartary; rice is the natural produce of Ethiopia; buckwheat of Asia; kidney beans of the East Indies; the beet and onion of Spain and Portugal; peas came from the south of Europe; Jerusalem artichokes from Brazil; peppers and cucumbers from India; the egg plant from Africa; the tomato from South America; pompions from Astracan; ruta baga from Sweden; the cauliflower from Cyprus, and asparagus from Asia. Our fruits originated in countries equally remote from each other. Without pretending to decide upon the disputed questions, whether all the cultivated apples have originated from the wild crab, or whether any of these varieties existed here when our shores were first visited by Europeans, I can say, that we have esteemed varieties of this fruit growing among us which originated on the banks of the Po and the Danube, of the Rhine and the Oder, of the Seine and the Thames;—and on the shores of the Baltic and Caspian. The peach came from Persia; the plum from Syria; the cherry from Pontus; the quince from Austria; the almond from Barbary and China; and the pear from Europe. Our pot herbs and medicinal cultivated plants are also mostly exotic; parsley is from Sardinia, purslain from South America, nasturtium from Peru, thyme from Spain, sage from the south of Europe, savery from France, marjorum from Sicily, rhubarb from Asia, and balm from Switzerland. So of our flowering shrubs and plants. Pinks, the narcissus and daffodil, are from Italy, the Dahlia from Mexico, the ranunculus and anemonie from Cappadocia, the hydrangea, balsam, aster and camellia from China and Japan, the tulip and hyacinth from the Levant, the tuberose from Ceylon, and our finest pæonies from China. And of trees, we are indebted to the north of Asia for the ornamental horse chestnut, and to farther India for the stately ailantus. These are but a small part of the contributions which horticulture has gathered from foreign lands for your convenience and pleasure. And every year adds to the list, new varieties.

The size and style of gardens vary according to the purposes which they are intended to serve, and the expense which it is designed to bestow upon them.

The royal gardens of Europe are of great extent and magnificence. That of Kew comprises 120 acres, and is maintained at vast expense. Gardens of this description are not indigenous to our country, and I trust it will be long ere they become acclimated among us.

Botanic gardens are found attached to most of the colleges of Europe, and to some few in the United States. Many of these are of considerable extent, and abound in rare exotic as well as in indigenous plants, and embrace those that are tender, and require protection, as well as hardy species.

There are many public gardens in Europe, laid out and embellished at great expense, which serve as promenades and pleasure grounds. These are sometimes maintained at public expense, and at other times by individuals. They are found in the environs of most of the capitals and large towns upon the continent. To show how much they may be made to contribute to the pleasure, as well as the health, of city life, and the influence they exert upon the manners of a community

* We have seen, in a monthly publication, accounts of exhibitions at 58 of these societies in England alone.

I will here quote, from the journal of a traveling horticulturist, the notice of a public garden of this kind belonging to the city of Frankfort, in Germany:

"This city is surrounded, except one side where the Maine runs, with a pleasure ground, or garden, at least two miles in length, and occupying the breadth of the former ditch and ramparts, and affording great variety of shady walks and picturesque scenery, with the grand advantage of being accessible from every part of the city in a few moments. One peculiar feature of this pleasure ground is, that it is not confined to trees and shrubs, but contains a profusion of the choicest flowers and roses, dahlias, chrysanthemums, &c. together with most of the choice annuals, as balsams, China asters, &c. even geraniums and ferraria tigrida, planted in large masses of each, and intermixed with vast beds of mignonette, all in a high state of luxuriance and beauty. Nothing could be more brilliant than the display of this garden, says the narrator, when I saw it in September, when the dahlias, and superb clumps of datura arborea, salvia coccinea, &c. were in flower; and, as a proof of the scale on which it is managed, and the attention paid to it, I may mention that the gardeners were then preparing a bed of irregular figure, wholly for pinks, about 50 feet long, and from 9 to 15 broad.

"This garden affords a striking proof of the great superiority of the manners of the German lower classes over those of the English. Though merely separated from the public highway by a low hedge which may be stridden across, and at all times accessible (there being no door or gates at any time to the entrances) to every individual of a population of 50,000 souls, and constantly frequented by servants and children of all descriptions, not a flower, or even a leaf of any one of the plants, seems ever touched. Even the beds of mignonette look as untrodden and unplucked, as if an English private garden. And yet there are no persons (that I saw) to watch; and instead of threats of heavy penalties, a printed paper is affixed on a board at each entrance, expressing, in German, that the public authorities having originally formed, and annually keeping up the garden, for the gratification of the citizens, its trees, shrubs and flowers, are committed to the safeguard of their individual protection. This simple appeal is here sufficient."

The public ground in this city, known as the military or Washington Square, might, at no great expense, be converted into a public garden of this kind, and furnish a most delightful and interesting promenade, during the summer, for citizens and visitors. When once put in order, it might be kept so with the avails of season tickets, at a nominal price, or the profits of a refectory, embracing the sale of spare plants, seeds and fruits. It might be surrounded by a neat fence, side walk and a row of ornamental trees, while the interior might be laid out with taste, enriched with the choicest fruits, and embellished with ornamental shrubbery and flowers. It would also afford pleasant facilities for the study of botany to the youth of our public schools.

One of the most splendid structures for the preservation and display of tropical plants, has been undertaken at Brighton, England; and although, owing to the misconduct of a foreman, in prematurely removing some of the supports, the building fell last August, its re-construction was immediately commenced, and it will probably be completed the ensuing summer. It is called the Brighton Antheum. It is an immense conservatory, for growing plants of great hight, and is constructed wholly of iron and glass, even the sashes being of iron, and requiring of this metal between four and five hundred tons. The structure had been reared, many choice plants introduced, and the glazing about being commenced, when it fell with a tremendous crash. The dome of this building was the largest ever constructed, rising 60 feet from the base of the rafters, and exceeding that of St. Peters, at Rome, by 8000 superficial feet, and requiring nearly two acres of glass to cover it. Among the plants purchased for this splendid conservatory, were three palms, sixty feet high, for which 1500*l.* had been paid, if my memory serves me, to the Messrs. Loddriges, nurserymen of London.

Private gardens, of great extent, and on an expensive scale, abound in most of the countries of Europe. In these, not only hardy fruits and vegetables are forced, for early use, but most of the tropical fruits are brought to a high state of perfection, by the aid of hot houses and walls. Strawberries, in this way, are produced for the table in April, melons in May, grapes and peaches in June, and pine apples at almost any season. It is affirmed, that in Britain a gentleman may derive from his own garden, with the aid of glass and fire heat, a more varied and richer dessert, throughout the year, than is to be met with on the most luxurious tables in any other country. And yet the summers of England are of so low a temperature, that the peach, grape, melon, &c., require the aid of artificial heat, or a wall, to bring them to perfection; and even our fine Spitzenburgh apple does not ripen well there in the open ground. Gardens of this description, though generally on a more limited scale, may be found in the neighborhoods of our commercial towns, and will doubtless be multiplied as we advance in horticultural improvement. The garden of Mr. Pratt, near Philadelphia, is distinguished for the number and variety of rare plants which it contains, and for its appendages and neat arrangement. That of Col. Perkins, in the vicinity of Boston, has a range of glass houses of nearly 700 feet in length, for rearing tender plants and forcing fruit, and exhibits a pattern of good taste and neatness. I am induced to believe, that we can only succeed in cultivating the fine varieties of foreign grape by means of grape houses. In the open ground, this fruit does not ripen well, and is very liable to be rendered worthless by blight and mildew, for which no effectual preventive seems yet to have been discovered. A grape house of 50 or 60 feet may be constructed for about $120, which will require no fire heat, and very little labor to manage it. It will besides serve for many half hardy plants, and other horticultural purposes.

Public Nurseries, which also belong to horticulture, are highly useful to all communities in which they are located. They serve to introduce and to concentrate the vegetable productions of every country, which are likely to subserve our wants, or administer to our pleasure. The interchanges which take place between those of Europe and America are now managed with such facility, that a new fruit, or a new flowering plant, which attracts notice on our continent, in a few years becomes common in the nurseries of both. The numerous horticultural periodicals of Europe, many of which circulate in our country, bring us early acquainted with whatever is new, rare or valuable in their collections, and a single season serves to introduce the desirable plant into our grounds. In this way we have been enabled to obtain the fine new varieties of Flemish and French pears, in some cases before they have fruited in England. The splendid double Dahlia first attracted attention in Europe some eight or ten years ago; and it is now common in our nurseries and pleasure grounds. I was instrumental in bringing into notice, five or six years ago, a fine indigenous variety of the apple, grafts of which I forwarded to Europe. I have since noticed it in the Catalogue of the London Hort. Society, with the names of many other of our local fruits, and in catalogues from the island of Jersey, and from Hamburg, in Germany. The ailantus was introduced six or eight years ago, by one of our consuls, from farther India, and it is now growing, I believe, in almost every state of the Union. Until within a few years public nurseries have been confined to the vicinity of New York and Philadelphia; but they are now springing up in every quarter of the Union. A very interesting establishment of this kind, and one of the oldest in the country, is located on the banks of the Schuylkill, a few miles below Philadelphia. It was planted by the elder Bartram, about ninety years ago, and contains, besides the usual variety of fruit and ornamental plants, most of the beautiful native trees and shrubs of our country, collected by that indefatigable botanist. It is now improved by Col. Carr, a descendant of the original proprietor. I saw the establishment in June, when the splendid Magnolias, the stately Liriodendron, the more humble Rhododendrons, Kalmias, &c. were displaying all their vernal beauty and fragrance. The scene afforded uncommon interest. A stately cypress, measuring thirty feet in circumference, brought from the south and planted by the founder ninety years ago, occupies the center of the grounds, and is surrounded by the oaks, pines, and other useful and ornamental natives of our forest,—exhibiting, altogether, probably the most perfect collection of American trees and plants that is to be found in any one spot.

Villa gardens are those which are attached to the country houses of men of opulence, and are generally laid out with taste, and embellished at considerable expense. They may be considered private gardens of the second grade. They are an indication of intellectual refinement, as well as of wealth, wherever they are found to prevail.

Those are denominated cottage gardens, which belong to the common class in Europe, and are most prevalent about villages and towns. While they contribute essentially to human subsistence, they afford an agreeable relaxation from the toils of labor.

Flower gardens occupy no little attention in many European countries, and in some parts of the United States. They are cultivated not only for the amusement of botanists and amateur florists, but, particularly in France, as a source of profit, and for supplying the market. The flower market, in the French capital, exhibits a rich display, and is almost as regularly visited by the citizens, to supply their daily wants of flowers, as is the market for the sale of provisions.

Market gardens abound in the neighborhood of all large towns, and administer largely to the health and comfort of their population. Those in the neighborhood of London cover an area of more than 5000 acres; and are not only appropriated to ordinary culture, but go largely into the forcing branches of the art. Almost every kind of,

fruit and esculent vegetable is forced in them by artificial heat; and the cultivator finds ample remuneration for his extra labor and expense in the high prices his products command in the market. A quotation of some of these prices, which I make from the Gardener's Magazine, will not only verify the truth of my remark, but will serve to convey some idea of the horticultural luxury indulged in by the wealthy classes of the British metropolis. Forced strawberries are quoted at 4*s.* sterling the ounce; peas at 2*l.* 2*s.* the quart, shelled; peaches and nectarines at the same price per dozen; grapes the same per pound; cherries at 31*s.* 6*d.* per lb.; pine apples at 24*s.* per lb.; beans at 5*s.* per 100 pods; potatoes at 3*s.* per lb.; asparagus at 15*s.* per 100; rhubarb 2*s.* 6*d.* per 100; cucumbers 24*s.* per brace, &c. It will be recollected that the English shilling is about 22½ cents. The market gardens of our country are on a more humble scale. Few of them employ artificial heat. But if we judge of the future by past improvement, and by the increasing taste of our citizens for the rare and finer productions of the garden, we may expect to see them ere long engaged in the forcing department on a pretty extensive scale. The first market garden from which this city was regularly supplied with vegetables, was established about the commencement of the present century, as I am informed, at Whitehall. At present some hundreds of acres are appropriated to this purpose, and the business gives employment to a large number of hands.

As having particular relation to those who depend upon these gardens for horticultural productions, for daily use, I take occasion to remark, that the quality of market garden productions depends materially on the judgment and liberality of the buyers. The object of the gardener is profit; and so long as the purchaser regards the price rather than the quality, he will continue to raise those varieties which give him the greatest product. The difference in the varieties of the same vegetable are manifestly great. This exists not only in the flavor, but in their nutricious and healthful properties: some varieties, particularly fruits, being absolutely prejudicial, while other varieties of the same species are highly conducive to health. In the potato, for instance, the difference in nutritive matter amounts to nearly a half in different varieties. Some of the coarser kinds yield but 14 and 16 per cent. of nutritive matter; while some of the finer kinds have given 28 per cent. And it is worth regarding, that good quality is almost inseparably connected with grateful flavor.

Horticulture, as an employment, is highly conducive to the healthful vigor of the body, and to an agreeable exercise of the mind. The labor it demands is neither severe in degree, nor monotonously tiresome in kind. It affords continued change and variety. The interesting subjects of which it has cognizance,—as the germination of the seed, the development of the leaf, the growth of the stock, the expansion of the flower, the swelling, maturing and gathering of the fruit, and the diversity in foliage, flower and fruit, of the various vegetable families under its care, present to the mind capable of appreciating and admiring the beauties of the vegetable kingdom, a succession of the most agreeable sensations.

As a recreation, horticulture offers all the pleasures I have enumerated, without the fatigues which accompany its manual operations. What more grateful pleasure, to the sedentary and studious, or to him who is habitually involved in the mercenary cares of business, than the relaxation afforded by a well kept garden, which exhibits to the senses, the fragrance, the beauty, the order and harmony, which Providence has imparted to the vegetable kingdom. Here is nothing to awaken jealousy, to excite distrust, to beget envy—or to inflame any of his grosser passions; but every object is calculated to tranquilize the mind, to soften down the asperities of his nature, and to beget, towards his fellow beings, feelings of kindness, philanthropy and love.

As a science, horticulture is rich in stores of intellectual wealth and usefulness. It embraces glossology, which teaches us the names of the parts of plants; phytography, or the nomenclature and description of plants; taxonomy, or their classification; vegetable organology, or the external structure of plants; vegetable anatomy, or their internal structure; vegetable chimistry, or primary principles of plants; vegetable pathology, or the diseases and casualties of vegetable life; vegetable geography and history, or the distribution of vegetables relatively to the earth and to man; and the origin of culture, derived from the study of vegetables. It also embraces the study of the natural agents of vegetable growth and culture,—as earths, soils and manures; the agency of heat, light, electricity and water, in vegetable culture, and of the atmosphere in vegetable development.

Whether we regard horticulture as an art or a science;—whether we consider it as administering to our wants, convenience and pleasures, or as promotive of useful knowledge,—it has high claims to our notice and regard.

In passing the threshold of manhood, young gentlemen, with high hopes and ardent desires, for fame and fortune, let me counsel you to cultivate a taste for this humble pursuit. Without abstracting you from business, let it at least interest you as a useful and elegant recreation. The passions in which you now indulge—the pleasures which you now pursue,—are to have, in all probability, a controling influence over your future characters and happiness. Select then those which will wear well, and set comely and comfortable in riper years. Let horticulture be embraced in the selection. Implant but the seeds, ere the soil becomes foul with weeds, and they will germinate and grow: And when the dreams and visions of youth shall have faded into sober realities; and the mind, tired with the bustle and turmoil of life, shrinks back upon its own resources for repose and enjoyment, then will horticulture be found capable of imparting rational and substantial pleasures, and of increasing in interest with the increase of years—for of all employments a taste for this is least apt to lose its enjoyments in the wane of life.

For the Genesee Farmer.

Mr. L. Tucker—In the Farmer of the 12th of April, I observe an article under the head of Science of Agriculture, copied from the foreign Quarterly Review, in which much is said about the excretory powers of the roots of plants, which are supposed to be poisonous. I presume that it is the same fanciful idea inculcated by Maccaire, Candolle, Lindley and others. Now I would ask, in what does this excretory, or excrementaneous, deposition consist? Suppose a sprig of evergreen, without any root, be attached to a dry wall, where it grows, say two inches—what does it deposit by its roots? We all know there are many plants which will grow in this situation, and entirely without contact with the earth, and have no roots. Such plants, I should suppose, might have some other means of receiving their nourishment and making depositions if any, than by their roots. In fact, I am fully of opinion that there is no such thing as excrementory depositions by the roots of plants, and no specific food. It is a subject on which I have inquired much, and knowing that it is the *easiest thing in the world to be mistaken*, I conclude that these gentlemen have not investigated very closely.

Potter, April 17, 1834. R. M. W.

Culture of Indian Corn.

Our correspondent "A.," has sent us a pamphlet entitled "Transactions of the Essex (Mass.) Agricultural Society," with an extract marked from a paper "on the culture of Indian corn," by Henry Colman. Our correspondent entertains a very high opinion of the views of Mr. Colman, and thinks that the course which he suggests is one well worthy the attention of the farmers in this section, and designs to adopt it himself.—*Columbia Sentinel.*

The average amount of this crop (Indian corn) throughout New-England does not exceed thirty bushels to the acre. In a report formerly made to the Agricultural Society of Massachusetts, the Dunstable Society estimated it at from 15 to 25 bushels; the Newbury Society at 40 bushels; the Vassalboro' Society at 30 to 40 bushels; the Danvers Society at from 15 to 40 bushels. Since these reports were made, the cultivation of this crop has in many places been considerably improved; and in some instances very large returns have been obtained; yet from the best observation we have been able to make, throughout the New England states, after a just allowance for the too common extravagence of almost all conjectural estimates, we are convinced that thirty bushels to the acre is a fair average of this crop among us.

Now, small as this return is, we believe, where the fodder is well husbanded and applied, that it is better than any crop we are accustomed to raise and upon which we bestow no more propotional expense of manure and labor. Land yielding about 30 bushels of corn to the acre, will, under the same manuring and cultivation, not be likely to yield more than 140 bushels of potatoes to the acre, nor more than one ton of English hay. These we admit are small returns; but we have been too often deceived by over estimates and too familiar with the actual weighing and measuring of crops to indulge in any of those excessive calculations by which men often impose on themselves. Now, without proceeding to any more minuteness of detail, as we believe the fodder from an acre of Indian corn, yielding 30 bushels to the acre, where well husbanded and applied, to be fully equal to two thirds of a ton of English hay; and as we know, that no crop returns so much manure to the ground, where the offal is taken due care of; and farther, as we are satisfied that Indian corn is no greater exhauster of the land than potatoes, whose return of vegetable offal to the ground can scarcely be considered as of any value, we are satisfied, that even at a yield of thirty bushels to the acre, Indian corn is one of the best crops that a farmer can raise, in proportion to the expense of cultivation.

But thirty bushels to an acre is a very small yield and one with which no enterprising farmer should be satisfied. Eighty, ninety, one hundred and sixteen, one hundred and thirty-five bushels to the acre have been raised within this county. Now what has been done, can be done

again. There is a great deal of land in the county adapted to the growth of Indian corn. If the expense of such cultivation is considerable, yet the increase of the crop is more than six times an equivalent for any increase of expense over that of the ordinary cultivation. The ploughing is the same; the harrowing and hoeing are not very different. The great increase of expense is in the manuring. Scarcely any crop, which can be cultivated will bear excessive manuring like Indian corn. But how are farmers to obtain this manure? We answer, by pressing the amount of your cultivation to the extent of your power; by the most careful gathering and husbandry of all the offal of every crop; by availing yourselves of every resource within your reach; the gathering of decayed leaves for litter; the washings of the roads, and the droppings of cattle on the highway, and in their places of rest and watering, near gates and under shades; by the collection of bog mud and the transportation of all sorts of refuse to the compost heap—ashes likewise in many cases have proved a most valuable manure for this crop; and one of the best farmers in the county, a strictly practical man, informed me that from his experience he had found leeched ashes a better manure for this crop than unleeched ashes, a fact if well founded of great importance. Plaster of Paris likewise deserves much more trial for this plant than it has yet received; and though the general impression is, that it is unavailing in the neighborhood of the sea, yet the interior of the county is so remote from marine exhalations that its efficacy may not be effected by them.

On a visit to an extensive farming establishment in the interior of New York, and certainly one of the best conducted farms which I have ever visited, the owner, who goes as largely into the cultivation of Indian corn as perhaps any man in the Eastern or Middle States, his produce often amounting to five thousand bushels a year, informed me that his crops for the last ten years had averaged more than one hundred bushels to the acre. His method of cultivation is peculiar; and the best test of its propriety and expediency is its success, he having within a few years more than trebled the amount of all his crops. He ploughs to the depth of about three or four inches, taking care to invert the sod completely; he then rolls it so as to exclude the air from the inverted sod; he then spreads about eight loads of manure to the acre, harrowing or ploughing it in to the depth of about an inch; and using great care never to turn over or to break the inverted sod. His corn, which is a small eight rowed kind, is then planted in hills at the exact distance of two feet eight inches each way, being careful always to use seed enough to secure at least four healthy plants to a hill. It is occasionally, but not always, manured with a small quantity of gypsum or leeched ashes, and harrowed and hoed carefully; but never hilled. His crops are very abundant; and he attributes much of his success to his taking advantage of the fermentation and decay of the inverted sod, which from the quantity of vegetable matter contained in it affords much nutriment to the growing plant, as soon as its roots strike into it.

One of my next visits was to the farm of Jesse Buel, Esq. well known to the Agricultural community, and whose establishment, though on a small scale, affords a pattern of neat, skillful, and intelligent husbandry, by few equalled, perhaps by none surpassed. In order to give some account of his successful cultivation of this crop, perhaps I cannot do better than to subjoin an extract of a letter received from him in the autumn of last year, relating to this matter.

"For my gratification I to-day (Sept. 13, 1832,) measured 33 feet square of my corn, (4 rods) which I cut and set up separately with a view of ascertaining accurately the product. I measured from the center of the space between the rows, and found that it gave 11 rows and 15 hills in each—the rows being precisely 3 feet one way and about 2½ the other. As I planted double the usual quantity of seed, and reduced the plants to four at first hoeing, every hill, I believe, had its four stalks, and each stalk one ear at least, sometimes two, besides some on the suckers. Assuming an average of four ears to the hill and of one gill to the ear, the product would be more than 103 bushels per acre; but estimating, what I am confident is below the truth, that each hill will give six gills, instead of four, the product will be swelled to the incredible amount of more than 154 bushels to the acre. I do not mean to say that this will exhibit an average of the field or of an acre; but state it to show the practicability of raising this quantity. The difference made by close planting and having every hill with its four stalks, is far greater than would seem on a superficial view. I think the method of doubling the seed, that we may not only have a full compliment but a selection of stalks, is the greatest improvement that has been made in the culture of this crop. High manuring is necessary. I think my ears are as large as usual and many of them at husking will give two gills."

Such results as these are certainly extraordinary; but I cannot see why they may not be realized, or at least very nearly approximated by the Essex farmers, much of whose land is favorable to the growth of Indian corn; and though, in many cases, hard to till, yet generally sure to make an ample return to the skillful, frugal and industrious cultivator.

In the cultivation of this crop, it is in the first place important to procure an early kind, as the best security against backward springs and early frosts. A field of corn in Lexington, planted on the 21st June, belonging to Mr. ——— Chandler, yielded an ample crop, and was perfectly ripened. The seed was of the twelve-rowed kind, much esteemed there and easily procured. The kernel is small, but it yields as much to the acre, and weighs more by the bushel than the eight-rowed kind with a larger kernel. Now a kind of this description, which will ripen in nine or ten weeks, in so unpropitious a season as the last, when there were few warm nights, which are generally considered most important to the forwarding of this crop, is certainly a great acquisition. It will be well to remark here that it is not only important to procure an early kind, but it will require particular attention to keep it so. Plants like animals have a constant tendency to become accommodated to the place and season in which they grow. Indian corn brought from the north to the south will become later and require a longer season for its ripening, unless particular care is taken in the selection of the earliest ripe ears for planting. Another consideration deserves attention to the selection of the seed for planting; which is, that high manuring has a tendency, by rendering the growth of a plant more luxuriant and succulent, to retard its ripening and so to lengthen its season.

We are satisfied from long observation and experiment, that the early planting of corn is generally and strongly to be recommended. The last season, it is true, formed an exception to this rule; but it was a rare case. Now a kind of corn, which by early planting and consequently early ripening gives an opportunity of laying down the same ground seasonably with winter grain and clover, or which, where the first plantings fail, will afford us the prospect of a crop, when the vacancies are not supplied or the planting cannot take place, until after even the middle of June, certainly is a great object to farmers.

The kind of land best suited for this crop, I am satisfied, is a green sward, completely inverted, rolled, and so cultivated as not during the whole season to disturb or break the sod, which has been turned over. This is a point of great importance; for the decomposition of the vegetable matter in the ground, which is effectually secured in this way, but entirely lost by the common mode of cultivation, will greatly contribute to the nutriment and vigor of the plant, supplying in fact an amount of manure greatly beyond what any conjectures would have made it, had not an exact experiment determined that in ordinary cases it may be rated over twelve tons of vegetable matter to an acre.

In the next place we protest against the practice of very deep ploughing for this crop, and that of burying the manure deeply under the sod. The depth of ploughing may be in some measure regulated by the nature of the soil; but three or four inches in sward land may be regarded as ample; and not so much as this, where this would carry you below the vegetable mold. All circumstances considered, I am satisfied that it is most eligible to spread the manure upon the surface, ploughing it in with a very light plough or harrow; and though something may be lost in this way by evaporation, yet not so much as by burying it under the sod; and the land is left in much better condition for the next crops where the manure is thus spread, than where it is placed in the hill; nor is the corn so likely to suffer from the drouth, and the saving of labor is considerable.

☞ List of payments next week.

PRICES CURRENT.

ARTICLES.	PER	ROCHESTER. April 25.	NEW-YORK. April 12.
Ashes—Pot....	100lbs.	$3,25.....	$4,25 a 0,00
——— Pearl..	.....	3,50.....	4,60 a 4,65
Beeswax, yellow	lb.	0,16 a 0,18	20 a 21
Candles, mould	.....	0,10 a 0,12	13.a 14
——— dipped.	.....	0,10a0,10½	11 a 12
Cloverseed.....	.....	6½.....	6 .a.6½
Flax, American.	.....	.....	8..a.8½
Flax seed, clean	tierce	9,00a10,00	10,50a11,00
Flour, Western.	barrel	4,75.....	5,38 a5,56
Grain, Wheat..	bushel	0,81.....	1,05 a1,10
——— Rye....	.....	0,62.....	58.a..60
——— Oats...	.....	0,25.a..27	35.a..36
——— Corn...	.....	0,46.....	60.a..61
——— Barley..	.....	0,50.a..56	70.a..71
Hemp, Americ'n	ton	.....	100 a 125
Hops, 1st sort..	lb.	.....	10.a..11
Plaster Paris...	ton	6,00 a 0,00	2,75 a0,00
Beef, Mess....	barrel	0,00 a10,00	8,75 a 9,50
——— Prime....	.....	0,00 a 8,00	5,50 a 5,75
Pork, Mess....	.....	14,00a15,00	12,50a14,25
——— Prime....	.....	11,00	9,25a10,50
——— in the hog.	100lbs.	4,00.....	.....
Hog's Lard....	.....	8,00 a 9,00	6,50 a 8,50
Tallow.....	.....	7,50 a 8,00	7,50.....
Hay.....	ton	6,00 a 7,00	12,20a00,00
Apples.....	bushel	25.a..50	.....
Potatoes.....	.....	18.a..25	.....
Cheese.....	lb.	6.a...8	7½.a..09
Butter.....	.....	12..a.14	15.a..17

BLOOD HORSES FOR SALE.

Washington Eclipse,

A BAY, 6 yeays old, 15 hands 3 inches high. His sire, *American Eclipse.*
His dam, *Thorn's Maria,* by old *Diomed.*
G. dam, Col. J. J. Alston's turf mare *Eliza,* by *Lively.*
G. G. dam, Col. Alston's *Wild Goose,* by *King Herod,*
G.G.G. dam by Kouli Khan, son of the Vernon Arabian.
G.G.G.G. dam by Valiant, son of the Godolphin Arabian.

Comet,

A bay, rising 15 hands 2 inches high.
His sire, the imported Arabian Bussorah.
His dam, *Thorn's Maria,* the dam of Washington Eclipse.

Duke of Bedford,

A grey, rising 16 hands high, a large and powerful horse.
His sire, the Arabian Bussorah.
His dam, Princess Charlotte, a Virginia Mare, by *Old Messenger.*

Bald Eagle,

A bay, 16 hands high.
His sire, *American Eclipse.*
His dam, *Hyacinth,* by *Ogden's Messenger,* son of *Old Messenger,*
G. dam, the Hon. John Randolph's *Bloomsbury,* by *Bedford.*
G. G. dam, *Telegraph,* by imported *Wildair.*
G.G.G. dam, Logania, by *Old Medley.*

The above are first rate horses. Terms, on sale, will be as favorable, as to price, mode and time of payment, as need be desired. If not soon sold, one or two of them could be hired. DAVID ELY.
Manlius, Onondaga co. April 20, 1834. apr 26

Domestic Economy.

ROASTING MEAT.

Let the young cook never forget that cleanliness is the chief cardinal virtue of the kitchen; the first preparation for roasting is to take care that the spit be properly cleansed with sand and water; nothing else. When it has been well scoured with this, dry it with a clean cloth. If spits are wiped clean, as soon as the meat is drawn from them, and while they are hot, a very little cleaning will be required. The less a spit is passed through the meat the better,* and before you spit, joint it properly—especially necks and loins—that the carver may separate them easily and neatly, and take especial care it be evenly balanced on the spit, that its motion may be regular, and the fire operate equally on each part of it;—therefore be provided with balancing skewers, and cookholds, and see that it is properly jointed.

Roasting should be done in the open air, to ventilate the meat from its own fumes, and by the radiant heat of a clear glowing fire, otherwise it is in fact baked; the machines, the economical grate-makers call *roasters*, are in plain English, *ovens*.

Do not put meat too near the fire at first; *the larger the joint the farther it must be kept from the fire*:—if once it gets scorched the outside will become hard, and acquire a disagreeable empyreumatic taste; and the fire being prevented from penetrating into it, the meat will appear done, before it is little more than half done, besides losing the pale brown color which roasted meat should have.

If you wish your jack to go well keep it as clean as possible, oil it and then wipe it; if the oil is not wiped off again it will gather dust;—to prevent this, as soon as you have done roasting cover it up.

Be very careful to place the Dripping-Pan at such a distance from the fire as just to catch the drippings; if it is too near, the ashes will fall into it, and spoil the dripping which will occasionally be found an excellent substitute for butter or lard.

The time meat will take for roasting will vary according to the time it has been kept and the temperature of the weather;—the same weight will be twenty minutes or half an hour longer in cold weather, than it will in warm—and if *fresh killed*, than if it has been kept till it is *tender*.—Cooks seldom calculate according to the variation of temperature, &c.

Every one knows the advantage of *slow boiling—slow roasting* is equally important.

It is difficult to give any specific rule for time;—but if your fire be properly made, and your meat skreen sufficiently large to guard what you are dressing from currents of air and the meat is not frozen you cannot do better than to follow the old general rule of allowing rather more than a quarter of an hour to the pound; a little more or less according to the temperature of the weather,—and in proportion as the piece is thick or thin,—the strength of the fire,—the nearness of the meat to it,—and the frequency with which you baste it; the more it is basted the less time it will take, as it keeps the meat soft and mellow on the outside, and the fire acts with more force upon it.

Reckon the time not to the hour when dinner is ordered but to the moment the roasts will be wanted. When the joint is half done remove the spit and dripping pan back, and stir up your fire thoroughly, that it may burn clear and bright for the browning; when the steam from the meat draws towards the fire, it is a sign of its being done enough; but you will be the best judge of that, from the time it has been down, the strength of the fire you have used, and the distance your spit has been from it.

* Small families have not always the convenience of roasting with a spit,—a remark on roasting by a string is necessary. Let the cook, *before* she puts her meat down to the fire, pass a strong skewer through *each end* of the joint; by this means when it is about half done, she can with ease turn the bottom upwards, the gravy will then flow to the part which has been uppermost, and the whole joint be deliciously gravy-full.

About half an hour before your meat is done make your gravy. Mix a salt spoonfull of salt, with a full quarter of a pint of boiling water, and drop this by degrees on the joint; and just before you take it up, put it nearer the fire to brown it. If you wish to *froth it*,—baste it, and dredge it with flour carefully; you cannot do this delicately nice without a very good light. The common fault seems to be using too much flour. The meat should have a fine light varnish of froth; not the appearance of being covered with a paste.

Though roasting is one of the most common, and is generally considered one of the most easy and simple processes of cookery, it requires more unremitting attention to perform it perfectly well than it does most made dishes.

The Cook's Oracle from which most of the foregoing observations are extracted and abridged, says that a sir-loin of about fifteen pounds will require to be before the fire about three and a half or four hours. It should be spitted evenly, so as not to be heavier on one side than on the other, —"put a clean dripping into the dripping-pan, tie a sheet of paper over it to preserve the fat, baste it well as soon as it is put down, and every quarter of an hour all the time it is roasting till the last half hour; then take off the paper, and make some gravy, &c. as before directed. If there is more fat than you think will be eaten with the meat cut it off and use it for other purposes, such as making pudding, frying, &c. About the same time, and similar management are proper for roasting ribs as for a sir-loin. The inside of a sir-loin should never be cut for the first meal, but be reserved entire for a hash, &c."

Meat should be kept uncooked, till it has lost its organic elasticity, and the flesh may be indented with the finger, but beyond this it is not wholesome to keep it.

Roasting and broiling, however, greatly diminish the weight of meat. By far the most economical mode of cooking is boiling or stewing, and with proper attention to season and giving a flavor to food dressed in that manner the nicest palates may be gratified. Still as roasting and broiling are not likely soon to be dispensed with, especially at the table of the wealthy, those who roast, had better *roast by rule*, and thus become entitled to *rule the roast* among those who are fond of *exquisite eating*.—*N. E. Farmer*.

Improved Cattle & Sheep for Sale.

THE subscriber having been at considerable expense to improve his stock of Cattle, is now enabled to offer to the public some fine specimens of the Durham Short Horned improved breed, viz: One thorough bred Bull six years old, one thorough bred Cow four years old, sired by the celebrated bull Bolivar, imported by Col. J. H. Powel of Philadelphia, several half blood Bulls and Heifers, two years old this spring and summer. One full blood heifer Calf, out of the above cow, one year old this spring. Also, several half blood heifers one year old.

ALSO—One Leicestershire Boar, two and a hal years old, of fine size and form. Also, a few fine Saxony Sheep, full blood, together with a few half bloods. All or any part of the above stock will be sold on reasonable terms. A. REYNOLDS.

Rochester, April 1, 1834. apr 5-f3t

Valuable Sheep for Sale.

THE subscriber haying more SHEEP than he wishes to keep through the summer, will on or before the first of June next, sell about eighty of his fine wooled Ewes with their lambs. Farmers wishing to commence or increase their flock of sheep, will seldom meet with as profitable a lot of Ewes. The greater part of them have been raised from rams from the flock of the Hon. R. S. Rose, and the lambs to be sold with them are from rams selected from the above mentioned flock, which for quality of wool, is not excelled in the United Sates. The subscriber has also 135 three and four year old Wethers of the first quality, which he will sell about the same time. JOHN JOHNSON.

Fayette, Seneca County, Feb. 7, 1833. feb 8-f3m

Sap Buckets.

2000 SAP Buckets for sale at the Rochester Pail, Tub and Churn Factory near Frankfort market, State-street.

3 mo. 18th 1834.—mar 1-f1m

Cheap Dahlias, Chinese Mulberries, &c.

WILLIAM PRINCE & SONS, Flushing, having greatly increased about 300 of their splendid varieties of Dahlias, now offer them at the follwing *reduced prices*, and they are ready to supply *five thousand* immediately at these rates:

DOUBLE DAHLIAS, 12 distinct varieties, with their names, comprising such sorts as have been most increased, for $3 00

DOUBLE DO., 12 distinct varieties, with their names, comprising kinds more rare and beautiful, or $4 50

DOUBLE DO., 12 distinct varieties, with their names, comprising such kinds are still more rare and extremely beautiful, $6 00

In addition to the splendid collection which last season covered an acre of ground, every new variety of great celebrity has been recently imported from Europe, and the *Amateurs* may now have their utmost wishes gratified, at prices reduced to accord with the times.

Levick's Incomparable, with scarlet petals tipped with white, now offered at $2,50

CHINESE MULBERRY, or Morus multicaulis, at $25 per 100, or $4,50 per dozen.

Twenty-five busheles new Italian Rye Grass; 50 do. Pacey's Perennial do.; 100 do. English Potatoe Oats and Early Angus do.; 1500 lbs. superior Province Lucerne; 150 lbs. Tripolium incarnatum, and various other Seeds. The prices of Roses, and of various Fruit and Ornamental Trees, &c. have been much reduced. Catalogues will be sent to every applicant, and all packages will be shipped precisely as directed, and with particular dispatch.

Linnæan Garden and Nurseries, April 3, 1834.

apr 12-2t

MONROE GARDEN AND NURSERY.

GREECE, NEAR ROCHESTER, N. Y.

THE subscriber offers to the public a choice selecti n of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous, Perennial Plants, Bulbous Roots, &c.

Also, a few hundred of the Morus Multicaulis or Phillipine Mulberry, the white Italian Mulberry by the hundred or thousand, English Hawthorn Quicks, Grape Vines of both native and foreign varieties, mostly of large size, for sale by the single vine, hundred or thousand at reduced prices The subscriber has a large Green House well filled with a large collection of choice Green-Hous Plants in good condition.

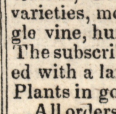
All orders, by mail or otherwise, wil be promptly attended to, and packages delivered in Rochester or at the mouth of Genesee River.

ASA ROWE.

Orders for Mr. Rowe's Nursery received by the Publisher of this paper.

Catalogues may be had at the office of the Genesee Farmer—will be sent to those who wish them gratis. October 5, 1833. f6m

Albany Nursery.



THE proprietors are enabled to publish, that in addition to their ordinary assortment of FRUIT TREES & PLANTS,—they have particularly a fine assortment of PEAR AND PEACH TREES, of the most approved varieties, in good condition for transplanting. They have also a large supply of HORSE CHESTNUTS, which they offer at 31 cents, in quantities of 100 or more, and at 37 1-2 single. Their collection of the Double Dahlia exceeds 300. Roots will be supplied to order at any time, or growing plants of the finer kinds, safely packed, will be forwarded in May by canal. The plants will generally flower in June and July, and till frost in autumn.

Orders for Trees or Plants may be left with L. TUCKER, Rochester, or forwarded to the Proprietors at Albany. BUEL & WILSON.

Albany, March 14, 1834. mar 22-4t

Flower Seeds.

THE Publisher of this paper has received from Wm. Thorburn, Seedsman, Albany, an assortment of Annual and Perennial Flower Seeds, comprising 53 sorts. These Seeds were raised at the *Albany Nursery* the past season, and are neatly done up in labelled papers—price 6 cents per paper.

March 28, 1834. L. TUCKER.